

United Engineering Company Shipyard,  
Pier 4  
(United Engineering Company Shipyard, East Pier)  
2900 Main Street  
Alameda  
Alameda County  
California

HAER No. CA-295-Q

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1-ALAM,  
4 Q-

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

Historic American Engineering Record  
National Park Service  
Department of the Interior  
San Francisco, California

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## HISTORIC AMERICAN ENGINEERING RECORD

### UNITED ENGINEERING COMPANY SHIPYARD, PIER 4 (United Engineering Company Shipyard, East Pier) (Structure No. 15)

HAER No. CA-295-Q

**Location:** 2900 Main Street  
Alameda  
Alameda County  
California

U.S.G.S. 7.5 minute Oakland West, Calif. quadrangle.  
Universal Transverse Mercator Coordinates: 10.562780.41842670

**Significance:** Pier 4 is a contributing structure in the United Engineering Company Shipyard historic district that has been determined eligible for the National Register of Historic Places. The United Engineering Company Shipyard, established in 1941 to build and repair ships for the U.S. Navy, is the last surviving of several large World War II shipyards in Alameda. United Engineering built 21 tugboats and repaired hundreds of ships during the war. The facility was one of the largest employers in Alameda and played an important economic and social role in the city. Pier 4 represents the ship repair aspect of work at the shipyard.

**Description:** Pier 4 is located in the wet basin (on the south side of the Oakland Inner Harbor) in the Alameda Gateway complex. Although once much longer, the north end of Pier 4 has been demolished, and it currently measures approximately 40 feet across and is 345 feet long. The structure of the pier is made principally of large timbers. The piles are large wooden posts treated with creosote and are sunk between 58 and 80 feet.<sup>1</sup> Running the width of the pier, rows of nine piles alternate with rows with five piles. The piles are capped with 12 by 12 inch posts. The deck structure consists of 12 by 12 inch timbers placed lengthwise along the pier on top of the pile caps. Then 4 by 12 inch planks are laid across the width of the pier. The surface planks are secured to the timbers beneath with large iron spikes and nails.

Steel plates are located in the surface of the pier ostensibly to provide access to pipes located beneath the deck. In addition, steel plates and pieces of plywood cover holes and rotting planks on the deck's surface.

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<sup>1</sup> John Hudspeth, Architect, *Bulkhead Wharf & Pier #4 Extension Plan & Details of Solid Deck for RR.* (Alameda, CA: United Engineering Co., Ltd., Alameda Shipyard, Ship Repair Facilities, 26 August 1942).

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An iron rail runs the full length of the pier on each side of the deck. A Colby crane originally ran along these tracks but has since been removed. It now sits on the wharf at the west end of the shipyard. Along the east and west edges of the pier there are the remains of electrical conduit boxes and pipe manifolds. In addition, along the east side of the pier there are remnants of five mooring bits and three fire hose boxes. All utilities have been abandoned

**Historical Context:**

The piers at the United Engineering yard were built in the early 1940s during a massive construction campaign. The company quickly built numerous buildings and structures to accommodate shipbuilding and repair necessitated by U.S. involvement in World War II.

Pier No. 4 first appeared on a site plan of the shipyard dated 22 October 1942. During construction of the pier, a decision was made to build a shorter structure than originally planned. Later, in a memo dated 20 December 1942, United Engineering Company requested that it be completed as planned, at a cost of \$70,000.

In the original plan for construction of Piers in this yard, Pier No. 4 was designed 544 feet in length and the bulkhead wharf at the head of Pier No. 4 was designed to extend to the easterly property line. As the work progressed, the dredging and pier construction costs far exceeded the estimated prices and, in an effort to keep the project funds within the amounts originally allocated, Pier No. 4 was cut in length from 544 feet to 424 feet and the easterly section of the bulkhead wharf was eliminated. On further consideration, we are convinced that in order to develop the full service value of Pier No. 4 and the 10,500 ton drydock which will be moored to the west side of that pier, it should be restored to the 544 feet length as originally designed and the bulkhead wharf should be constructed to eighty (80) feet to the east, as originally planned. By so restoring the original design length of the pier, the crane located thereon will be able to reach any point of a vessel located in the drydock or on the adjacent pier.

Shortly after the pier was completed, a dry dock was added to the west side of Pier 4. This was a 10,500 ton dry dock and was controlled from a building constructed on the bulkhead wharf at the base of Pier

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4. At this time, it was also proposed that an even larger (14,000 ton) floating dry dock be built on Pier 5.<sup>2</sup>

After fifty years of use and exposure to elements, by 1996 many of the piles were broken, missing, or rotted. As a result the deck was twisting and collapsing not to mention deteriorating.<sup>3</sup> The Army Corp of Engineers analyzed the problem and demolished the northern end of Pier 4. Pier 4 is seriously deteriorated and is currently not in use.

**Sources:**

Alameda County Recorder. Exhibit B: Description of Buildings, Waterfront Improvements, Shipyard Utilities, Machinery and Equipment. 18 February 1970. RE: 2568, IM 80-82.

Alameda Gateway. *Existing Site Plan*. 30 January 1984.

Hudspeth, John, Architect. *Bulkhead Wharf & Pier #4 Extension Plan & Details of Solid Deck for RR*. Alameda, CA: United Engineering Co., Ltd., Alameda Shipyard, Ship Repair Facilities, 26 August 1942.

Kennedy, Clyde C., Engineering Office of. "Area Plan and Interceptor Profile: Improvements to Sewer System for Properties Occupied by Todd Shipyards Corp., Alameda, Calif." Prepared for Matson - United Properties, Inc. 9 August 1951.

*Map of Alameda Shipyard Proposed Additional Facilities*. Alameda, CA: United Engineering Co., Ltd., Alameda Shipyard, 24 February 1944.

*Ship Repair Facilities Piers Nos. 2, 3, & 4*. Alameda, CA: United Engineering Company, Ltd., 7 March 1942.

Thompson, Richard G., Lieutenant Colonel, San Francisco District, Corps of Engineers. Letter to Cheryl Widell, State Historic Preservation Officer, requesting Determination of Eligibility. 30 April 1998.

United Engineering Company Ltd. *Alameda Shipyard, San Francisco Area*, Sketch No. 48. 10 February 1944.

United Engineering Company Ltd. *Alameda Shipyard: Map Showing Existing Facilities and Those Under Construction*. 22 October 1942.

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<sup>2</sup> *Map of Alameda Shipyard Proposed Additional Facilities*. (Alameda, CA: United Engineering Co., Ltd., Alameda Shipyard, 24 February 1944) sheet 3.

<sup>3</sup> Michael J. Walsh, Lt. Colonel, District Engineer, *Partial Demolition of Alameda Gateway Piers* (San Francisco, CA: U.S. Army Engineer District, San Francisco Corp of Engineers, 27 March 1996) sheet 2.

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United Engineering Company Ltd. *Map of Alameda Shipyard Showing Existing and Proposed Additional Facilities*. Plan no. UEC-A-1-7. 14 June 1943.

United Engineering Company Ltd. Memo to Bureau of Ships, Washington DC. "Contract NObs-76 – Funds for completion of plant facilities". 20 December 1942.

United Engineering Company Ltd. Memo to Chief of the Bureau of Yards and Docks. "Reproduction Costs and Market Value to Third Parties of 'Civil Works'", with Estimated Schedule of "Civil Works" Facilities. 8 February 1946.

United States. Army Corps of Engineers – San Francisco District and California. State Historic Preservation Officer. Memorandum of Agreement Regarding the Oakland Harbor Navigation Improvements Project, Alameda County, California. Signed 31 January 2001 and 22 January 2001.

Walsh, Michael J., Lt. Colonel, District Engineer. *Partial Demolition of Alameda Gateway Piers*. San Francisco, CA: U.S. Army Engineer District, San Francisco Corp of Engineers, 27 March 1996.

Widell, Cheryllyn, State Historic Preservation Officer. Letter to Richard G. Thompson, Lieutenant Colonel, San Francisco District, Corps of Engineers, Regarding Oakland Harbor Ship Channel Deepening and Improvements, Alameda County [Determination of Eligibility Concurrence]. 9 June 1998.

**Project Information:**

This report was prepared for the U.S. Army Corps of Engineers and the Port of Oakland in accordance with a Memorandum of Agreement (MOA) between the U.S. Army Corps of Engineers, San Francisco District and the California State Historic Preservation Officer concerning the former United Engineering Company shipyard. The Port of Oakland and the City of Alameda were concurring parties to the MOA. The MOA was created because of a proposal by the U.S. Army Corp of Engineers in partnership with the Port of Oakland to sponsor the Oakland Harbor Navigation Improvements Project. This project "would deepen Oakland Harbor channels and berth areas from -42 feet mean lower low water (MLLW) to -50 feet MLLW, with 2 feet overdredge allowance" and widen some portions of the channels. These actions, which would constitute an Undertaking under Section 106, would result in the demolition of several buildings and structures at the former United Engineering Company Shipyard. Because the shipyard had been determined eligible for the National Register of Historic Places, the Undertaking would have an adverse effect on the property. Under the MOA, the following HAER documentation has

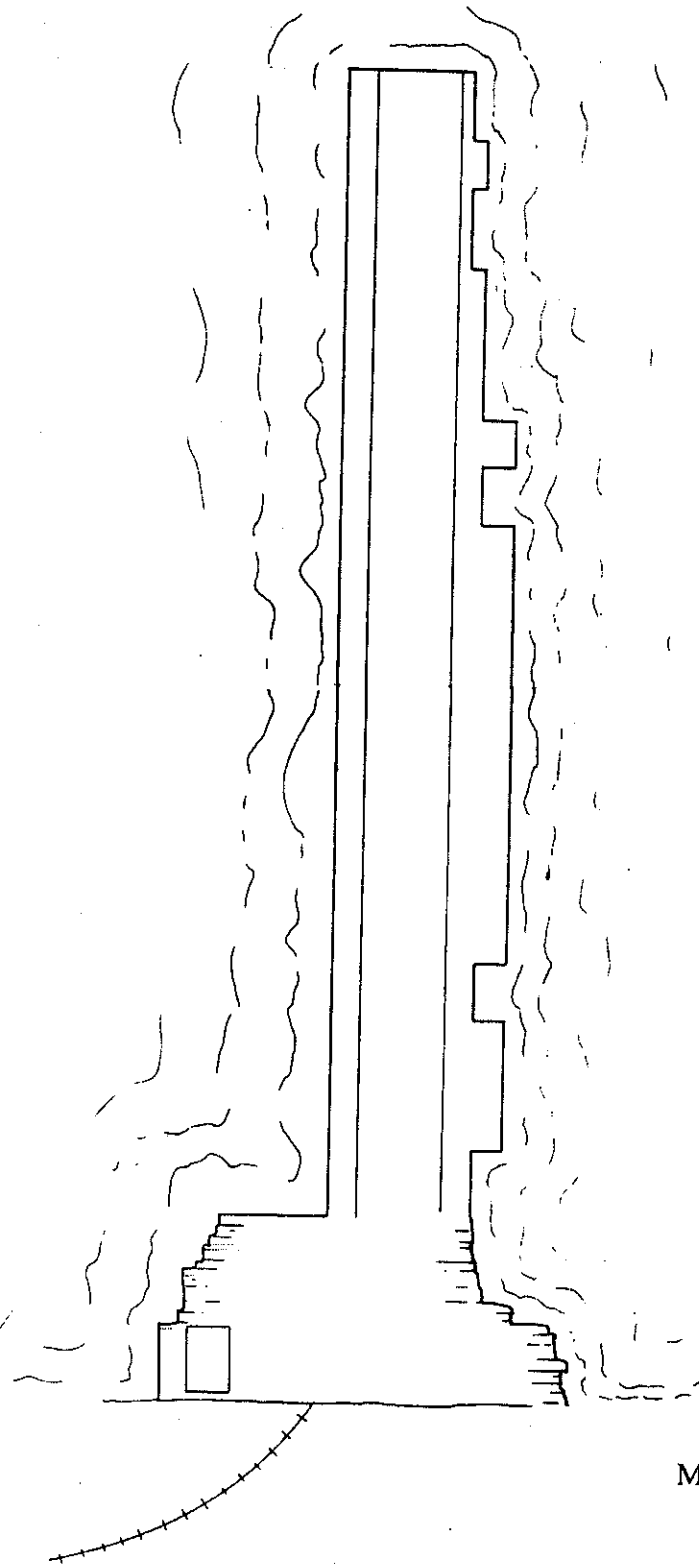
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been prepared: a written historic and descriptive report on the shipyard as a whole, seventeen separate reports on individual buildings and structures in the shipyard, including this report, and photographic documentation.

This structure will be demolished by the federal undertaking.

This report was prepared by Jody Stock, architectural designer, and Michael R. Corbett, architectural historian. Corbett was a subcontractor to Basin Research Associates of San Leandro. Basin Research was under contract to g. borchard & associates.

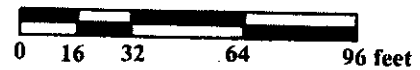
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**STRUCTURE NO. 15: PIER 4**



**NORTH**



Measured by Stephen Hardy and Jody Stock

1/8/01

Drawing prepared by Jody R. Stock

2/11/01